UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,458	05/29/2001	Jin Soo Lee	LGE-007	3750

34610 7590 02/24/2004	EXAMINER
FLESHNER & KIM, LLP	BASOM, BLAINE T
P.O. BOX 221200	

	ART UNIT	PAPER NUMBER
CHANTILLY, VA 20153	2173	3

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/865,458		LEE ET AL.
	Examiner		**Art Unit**
	Blaine Basom		2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it merely recites claim 1. Applicant

is reminded of the proper language and format for an abstract of the disclosure:

The abstract should be in narrative form and generally limited to a single paragraph on a separate
sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words
in length since the space provided for the abstract on the computer tape used by the printer is
limited. The form and legal phraseology often used in patent claims, such as "means" and "said,"
should be avoided. The abstract should describe the disclosure sufficiently to assist readers in
deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It
should avoid using phrases which can be implied, such as, "The disclosure concerns," "The
disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

Claim Objections

Claims 9, 11, 12, 17, and 20 are objected to because of the following informalities: In

claim 9, the phrase, "perform mapping of same object data" is objected to for being

grammatically incorrect. In claim 11, the phrase, "a multimedia program data" is object to as

being grammatically incorrect. In claim 12, the phrase, "storing an object data expression

information table after defining the object data expression information table including various

expressions of object data" is object to as being grammatically incorrect. In claim 17, the phrase

"updating preference information table of the preference information constructor by using

information of the provided object data expression information table after comparing preference

information table of the preference information constructor with the provided object data

expression information table," is objected to as being grammatically incorrect. In claim 20, the

phrase, "updating preference information table" is object to as being grammatically incorrect.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3, 8, 13-15, 18, and 19 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Each of claims 2-3, 13-15, 18, and 19 comprise improper

idiomatic English to the extent that the claims are confusing and are rendered indefinite. These

claims are generally narrative and indefinite, failing to conform to current U.S. practice. They

appear to be a literal translation into English from a foreign document and are replete with

grammatical and idiomatic errors. For example, claim 2 recites, "the object data expression

information table includes one identifier for expressing one object data and not less than one

object data different each other." In claim 8, the Examiner believes an "and" or an "or" is

required to tie together the CATV, the TV, the VOD, the digital broadcast, the Internet

broadcast, and the Internet retrieval site recited in the claim; Claim 8 is consequently indefinite

as to whether the limitations are disjunctively-joined or conjunctively-joined. Further regarding

claim 18, the phrase "such as" renders the claim indefinite because it is unclear whether the

limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 6,581,207, which is attributed to Sumita et al. (and hereafter referred to as "Sumita"), and

also over U.S. Patent No. 6,044,365, which is attributed to Cannon et al. (and hereafter referred

to as "Cannon"). In general, Sumita describes an "information filtering system" for presenting

multimedia programs to a user according to the user's personal tastes (see column 1, line 59 –

column 2, line 34). The user's taste in programs is maintained via a "user profile," and is

mapped against content description information in order to ascertain multimedia programs of

interest to the user (see column 2, lines 22-34). Specifically, an "information filtering unit"

performs this mapping (see column 2, lines 22-34). Thus Sumita describes, in a user adaptive

multimedia system reflecting user preference information extracted from user history

information, an apparatus, namely an information filtering unit, which is for mapping data for an

efficient matching between user preference information and content description information.

Specifically regarding claim 1, Sumita describes a server system, called a "broadcasting

station," which is for transmitting an electronic program guide having information about

multimedia program data to be serviced to a user (for example, see column 4, lines 36-50).

Sumita also describes a client system, specifically an "information filtering unit," which maps

object data by receiving content description information transmitted from the server system,

namely the electronic program guide, and performs matching between the content description

information and user preference information extracted from user history information regarding

prior multimedia programs (see column 4, lines 36-67; and column 6, lines 22-56). Particularly,

the information filtering unit performs this mapping by using keywords maintained in the user's

profile to find relevant programs in the electronic program guide (see column 6, lines 22-56).

This information filtering unit thus obtains user preference information regarding programs

described in the received electronic program guide and reflects the gotten user preference

information to a multimedia system, specifically video equipment on the user's side (for

example, see column 4, lines 36-67). Sumita, however, does not explicitly disclose that the

server also transmits an "object data expression information table," which defines expression

information about multimedia data having various expressions of the same content, and which as

expressed in claim 1, is used to map the multimedia data having various expressions to user

preference information.

Like Sumita, Cannon presents a system used to access and present multimedia data

according to a user's preference. Specifically, both Sumita and Cannon disclose that one or

more keywords are used to search for and identify multimedia content satisfying user preference

information (see column 6, lines 22-56 of Sumita; and column 2, lines 62-67 of Cannon).

Regarding this use of keywords to identify multimedia content, Cannon describes a problem,

stating that although various expressions usually identify the same multimedia content, only one

keyword is accepted to search for and access the multimedia content; meaning that the exact

keyword must be known to identify the content (see column 3, lines 33-65). Cannon remedies

this problem with a thesaurus file comprising a plurality of expressions, whereby each expression

in the thesaurus is linked to one or more "referent sets," and whereby each referent set is in turn

linked to a multimedia entity (see column 4, lines 39-65; and column 6, line 31 – column 7, line

49). A single referent set thus associates synonyms, metonyms, misspellings, and foreign

language equivalents into a single set identifying a multimedia data entity to be retrieved. In

order to retrieve a multimedia entity, a word describing the entity is determined and then found

in the thesaurus, whereby the referent set or sets comprising the word are ascertained, thus

identifying the related multimedia entities (see column 7, line 65 – column 8, line 21). The

thesaurus file is therefore understood to comprise an array of words, and for each word, a link or

links identifying the referent set or sets to which the word is associated (for example, see figure

5; and its associated description in column 6, line 31 – column 7, line 49). Consequently, this

thesaurus file is considered an object data expression information table, like that of the claimed

invention.

It would have been obvious to one of ordinary skill in the art, having the teachings of

Sumita and Cannon before him at the time the invention was made, to modify the system taught

by Sumita such that the information filtering unit additionally receives a thesaurus file, like that

described by Cannon, the thesaurus file being used to reference programs in the electronic

program guide by keyword. It would have been advantageous to one of ordinary skill to utilize

such a combination because a thesaurus file provides for a more accurate determination of

media, given a keyword, as is taught by Cannon.

In reference to claim 2, the thesaurus file disclosed by Cannon comprises a link or links

for each word in the file, the link or links identifying referent sets, which in turn identify specific

multimedia entities (for example, see figure 5; and its associated description in column 6, line 31
– column 7, line 49). As two different words in the thesaurus file may be included in the same
referent set (for example, see figure 5), these two different words would be associated with the
same link identifying the referent set. Thus, the thesaurus file described by Cannon includes one
link identifying two different words, or as expressed in claim 2, one identifier for expressing one
object data and not less than one object data different each other.

As per claim 3, the thesaurus file described by Cannon comprises, for each word in the
file, a link or links identifying referent sets, which in turn identify specific multimedia entities
(for example, see figure 5; and its associated description in column 6, line 31 – column 7, line
49). As two different words in the thesaurus file may be included in the same referent set (for
example, see figure 5), the link identifying the referent set would be associated with the two
different words in the thesaurus file and identify the same multimedia content. In such
circumstances, the thesaurus file described by Cannon includes one link which identifies two
different words associated the same multimedia content, or as expressed in claim 3, one identifier
for expressing not less than one object data of the same content and not less than one object data
different each other.

With respect to claim 4, the thesaurus file described by Cannon comprises, for each word
in the file, a link or links identifying referent sets, which in turn identify specific multimedia
entities (for example, see figure 5; and its associated description in column 6, line 31 – column 7,
line 49). As two different words in the thesaurus file may be included in the same referent set
(for example, see figure 5), the two different words in the file would be associated with the same
link to this referent set. In such a case, the thesaurus file described by Cannon includes one link

which identifies, and associates, two variously-expressed words related to the same multimedia

content, or as expressed in claim 4, one identifier for expressing not less than one object data of

the same content, and an identifier link for identifying object data which is variously expressed

as one object of the same content when one object data is variously expressed.

Concerning claim 5, Sumita teaches transmitting an electronic program guide to the

information filtering unit, which searches the guide by keyword to determine programs of

interest to the user (for example, see column 4, lines 39-50). Consequently, it is understood that

the above-described thesaurus file, which is used to search the electronic program guide by

keyword, is similarly generated by the broadcasting station and transmitted to the information

filtering unit. The above-described combination of Sumita and Cannon thus presents a provider

system, namely a broadcasting station, which generates the thesaurus, i.e. object data expression

information table, and provides it to the client system, specifically an information filtering unit.

Regarding claims 6 and 12, the above-described broadcasting station of Sumita and

Cannon maintains multimedia data streams to be provided to the user, and a thesaurus file

defining various expression of the multimedia data, as is described above. Consequently, it is

understood that this broadcasting station comprises some sort of "content description information

storing unit," which stores the thesaurus, and a "multimedia data storing unit," which stores

multimedia data streams of programs to be serviced to the user. The broadcasting station of

Sumita and Cannon is thus considered a server system, like that expressed in claim 6. By the

same reasoning, Sumita and Cannon are considered to teach a method, like that recited in claim

12.

With respect to claims 7, 8, and 16 it is interpreted that the above-described information

filtering unit of Sumita and Cannon comprises a data receiving unit for receiving an object data

expression information table from a server system and data streams from a multimedia data

storing unit, and which outputs this data to a decoder, which decodes the data and outputs it (for

example, see column 4, lines 39-48; and column 6, lines 5-42 of Sumita). Additionally, it is

interpreted that the information filtering unit comprises a preference information table storing

user preference information extracted from user history information about a prior multimedia

program; a data read/write controlling unit for reading and writing data of the preference

information table; and a preference information processing unit for mapping object data having

various expressions by performing a matching between data decoded in the decoder, namely, the

object data expression information table and the preference information data of the preference

information table, and which outputs new user preference information and reflects the outputted

user preference information to a multimedia system (see column 4, lines 54-67; and column 6,

lines 42-56). Lastly, it is understood that the information filtering unit comprises a displayer,

which is inputted the user preference information outputted from the preference information

processing unit, and which outputs the information through an outputting medium, such as a TV

or Internet broadcast (see column 4, line 39 – column 5, line 3; and column 9, lines 54-62). The

information filtering unit of Sumita and Cannon is therefore considered a client system, like that

expressed in claims 7 and 8. By the same reasoning, Sumita and Cannon are considered to teach

a method, like that recited in claim 16.

Concerning claim 9, the above-described combination of Sumita and Cannon presents a

system whereby a broadcasting station sends a thesaurus to an information filtering unit,

whereby the information filtering unit compares keywords from a user profile with identifiers in

the thesaurus in order to ascertain programs of interest to the user, as is described above. Thus

the broadcasting station and the information filtering unit jointly own the thesaurus, whereby

identifiers in the thesaurus are compared. Consequently, Sumita and Cannon are considered to

teach a method for mapping multimedia data for an efficient matching between user preference

information and content description information, wherein a server system, specifically a

broadcasting station, and a client system, specifically an information filtering unit, perform

mapping of multimedia data by jointly owning an object data expression table and comparing

identifiers included in the object data expression table with keywords from a user profile.

Concerning claim 10, the above-described combination of Sumita and Cannon teaches

providing a table, specifically a thesaurus, which includes identifiers for various multimedia data

and information about various expressions of multimedia data included in an electronic

programming guide provided from a server to a client by constructing the thesaurus and

comparing data in the thesaurus with keywords from a preference information table, as is

described above. It is understood that such actions, i.e. comparing and compounding the

thesaurus with the preference information, results in multimedia programs being selected that are

of interest to the user, and which ultimately results in updating the preference information of the

client (for example, see column 4, lines 36-67 of Sumita). Consequently, Sumita and Cannon are

considered to teach a method like that recited in claim 10.

In reference to claim 11, the above-described combination of Sumita and Cannon

teaches: transmitting a thesaurus defining expression information about multimedia data having

various expressions of the same content and information about a multimedia program to be

serviced to a user; mapping multimedia data having various expressions by receiving the

transmitted content description information, namely, the thesaurus and information about

multimedia program data, and performing a matching between the received content description

information and user preference information extracted from user history information about prior

multimedia programs and getting user preference of contents described in the received content

description information and reflecting the gotten use preference information to a multimedia

system, specifically video equipment, as is described above. Consequently, the combination of

Sumita and Cannon are considered to teach a method like that recited in claim 11.

In reference to claim 13, the thesaurus file disclosed by Cannon comprises a link or links

for each word in the file, the link or links identifying referent sets, which in turn identify specific

multimedia entities (for example, see figure 5; and its associated description in column 6, line 31

– column 7, line 49). As two different words in the thesaurus file may be included in the same

referent set (for example, see figure 5), these two different words would be associated with the

same link identifying the referent set. The thesaurus file described by Cannon therefore includes

one link identifying two different words, and thus Sumita and Cannon teach defining one

identifier for expressing one object data and storing the defined identifier in a table; and

generating not less than one different object data and storing the not less than one different object

data in a table, as is recited in claim 13.

As per claim 14, the thesaurus file described by Cannon comprises, for each word in the

file, a link or links identifying referent sets, which in turn identify specific multimedia entities

(for example, see figure 5; and its associated description in column 6, line 31 – column 7, line

49). As two different words in the thesaurus file may be included in the same referent set (for

example, see figure 5), the link identifying the referent set would be associated with the two

different words in the thesaurus file and identify the same multimedia content. In such

circumstances, the thesaurus file described by Cannon includes one link which identifies two

different words associated the same multimedia content, and thus Sumita and Cannon teach

defining one identifier for expressing not less than one object data of the same content and

storing the one identifier in a table; and generating not less than one different object data and

storing the not less than one different object data in a table, as is recited in claim 14.

With respect to claim 15, the thesaurus file described by Cannon comprises, for each

word in the file, a link or links identifying referent sets, which in turn identify specific

multimedia entities (for example, see figure 5; and its associated description in column 6, line 31

– column 7, line 49). As two different words in the thesaurus file may be included in the same

referent set (for example, see figure 5), the two different words in the file would be associated

with the same link to this referent set. In such a case, the thesaurus file described by Cannon

includes one link which identifies, and associates, two variously-expressed words related to the

same multimedia content. Consequently, Sumita and Cannon are considered to teach defining

one identifier for expressing not less than one object data of the same content and storing the one

identifier in a table, and defining an identifier link for identifying various object data as one

object of the same content when one object data is variously expressed, as is recited in claim 15.

As per claims 17-19, the above-described combination of Sumita and Cannon teaches

transmitting a table, specifically a thesaurus, from a broadcasting station to an information

filtering unit, whereby it is understood that such a transmission occurs when the information

filtering unit and the broadcasting station do not jointly own the same copy of the thesaurus.

This combination further teaches comparing and compounding the thesaurus with user

preference information maintained at the information filtering unit, these comparisons resulting

in selecting and sending multimedia programs that are of interest to the user, and ultimately

resulting in updating the preference information of the information filtering unit (for example,

see column 4, lines 36-67 of Sumita). Consequently, the broadcasting station and information

filtering unit described by Sumita and Cannon are considered a "content description information

constructor" and a "preference information constructor," respectively, like that recited in claim

17, and Sumita and Cannon are considered to teach a method like that of claim 17. Regarding

claim 18, Sumita and Cannon further teach updating the user's preference information in

response to: generating a thesaurus, which as described above in the rejections for claims 2-4,

includes identifiers for expressing one or more object data of the same content and various

expressions by the identifiers, the thesaurus being generated by the broadcasting station, i.e.

content description information constructor; providing the thesaurus generated by the

broadcasting station to the information filtering unit, i.e. preference information constructor, as is

described above in the rejection for claim 1; and updating preference information by the

information filtering unit in response to comparing the thesaurus provided from the broadcasting

station with preference information of the information filtering unit, as is described above.

Similarly, and specifically regarding claim 19, Sumita and Cannon also teach updating the user's

preference information in response to: generating a thesaurus, which as described above in the

rejections for claims 2-4, includes identifiers for expressing one or more object data of the same

content and representative expressions by the identifiers, the thesaurus being generated by the

broadcasting station, i.e. content description information constructor; providing the thesaurus

generated by the broadcasting station to the information filtering unit, i.e. preference information

constructor, as is described above in the rejection for claim 1; and updating preference

information by the information filtering unit in response to mapping an item in of user preference

information to an equivalent keyword in the thesaurus by information filtering unit, as is

described above.

As per claim 20, the above-described combination of Sumita and Cannon teaches

transmitting a table, specifically a thesaurus, from a broadcasting station to an information

filtering unit, whereby it is understood that thesaurus comprises keywords stored in lookup table

format and that the thesaurus is transmitted when the information filtering unit and the

broadcasting station do not jointly own the same copy of the thesaurus. Particularly, the

keywords are associated with identifiers for use when comparing the thesaurus data with user

preference identifiers maintained at the information filtering unit, these comparisons resulting in

selecting and sending multimedia programs that are of interest to the user, and ultimately

resulting in updating the preference information of the information filtering unit (for example,

see column 4, lines 36-67 of Sumita). Consequently, the broadcasting station and information

filtering unit described by Sumita and Cannon are considered a "content description information

constructor" and a "preference information constructor," respectively, like that recited in claim

20, and Sumita and Cannon are considered to teach a method like that of claim 20.

Regarding claim 21, the above-described combination of Sumita and Cannon teaches:

acquiring keywords from a user profile, whereby it is understood that each keyword has some

sort of weight, i.e. value, associated with it in order to ascertain a degree of similarity between

the user profile and media information (for example, see column 6, lines 22-56; and column 7,

line 50 – column 8, line 3 of Sumita). This combination further teaches retrieving multimedia

data by comparing an expression corresponding to each keyword described in the user profile

with expression information included in a thesaurus provided from a broadcasting station, i.e.

multimedia provider, in order to retrieve multimedia data including a program corresponding to

each keyword, as is described above. Lastly, it is understood that the acquired preference value

is reflected and the multimedia data is output to a user (for example, see column 4, lines 36-67 of

Sumita). Sumita and Cannon are therefore considered to teach a method like that recited in

claim 21.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered

pertinent to applicant's disclosure. The applicant is required under 37 C.F.R. §1.111(C) to

consider these references fully when responding to this action. The Herbert, III and Shwartz et

al. U.S. Patents cited therein each disclose a table, like that recited in claim 1, which serves as a

look-up for content having a plurality of expressions. The Herz et al. U.S. Patent cited therein

presents a system whereby multimedia data is selected and presented to the user according to his

or her profile.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Blaine Basom whose telephone number is (703) 305-7694. The

examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CAO (KEVIN) NGUYEN
PRIMARY EXAMINER

btb